

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Original) An air-fuel ratio control apparatus for an internal combustion engine of a vehicle, the air-fuel ratio control apparatus comprising:

an air-fuel ratio sensor located upstream of a three-way catalyst in an exhaust system of the internal combustion engine, wherein the air-fuel ratio sensor detects an engine air-fuel ratio based on a concentration of oxygen in exhaust gas; and

an oxygen sensor located downstream of the three-way catalyst, wherein the oxygen sensor detects the engine air-fuel ratio based on the concentration of oxygen in exhaust gas,

wherein the control apparatus:

performs feedback control of an amount of fuel based on output of the air-fuel ratio sensor such that the engine air-fuel ratio seeks a stoichiometric air-fuel ratio;

performs sub-feedback control by computing a sub-feedback correction value based on output of the oxygen sensor, wherein the sub-feedback correction value corrects the fuel amount in the feedback control;

learns a learning value based on the sub-feedback correction value, wherein the learning value is used for compensating for a stationary difference between the stoichiometric air-fuel ratio and the engine air-fuel ratio, which stationary difference is based on output characteristics of the air-fuel ratio sensor;

stores the learning value;

executes fuel cutoff control in a predetermined period; and

inhibits the fuel cutoff control until the learning is stabilized when learning of the stored learning value is performed after the stored learning value is cleared.

2. (Original) The air-fuel ratio control apparatus according to claim 1, further comprising a fluid power transmission having a lockup clutch, wherein the lockup clutch couples the internal combustion engine and an automatic transmission to each other, wherein, during deceleration of the vehicle, the air-fuel ratio control apparatus causes the lockup clutch to operate in a slipping state, and wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ratio control apparatus inhibits the lockup clutch from operating in a slipping state until the learning is stabilized.

3. (Currently amended) The air-fuel ratio control apparatus according to claim 1, wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ~~ratio~~ ratio control apparatus changes a feedback gain, which is used for computing the sub-feedback correction value, to a value that is greater than a value of the feedback gain used after the learning is stabilized.

4. (Currently amended) The air-fuel ratio control apparatus according to claim 1, wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ratio control apparatus ~~relaxes~~ increases a limit value of the sub-feedback correction value compared to a limit value used after the learning is stabilized.

5. (Original) The air-fuel ratio control apparatus according to claim 1, wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ratio control apparatus determines that the learning is stabilized based on that the number of times of output reversal of the oxygen sensor reaches a predetermined number of times during the sub-feedback control.

6. (Original) The air-fuel ratio control apparatus according to claim 1, wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ratio control apparatus determines that the learning is stabilized based on that a predetermined period has elapsed from the start of the sub-feedback control.

7. (Original) The air-fuel ratio control apparatus according to claim 1, wherein, when learning of the learning value is performed after the stored learning value is cleared, the air-fuel ratio control apparatus changes the absolute value of a feedback gain, which is used for computing the sub-feedback correction value, or the absolute value of a limit of the sub-feedback correction value to a value that is greater than a value of the feedback gain or the feedback correction value limit used after the learning is stabilized.

8. (Original) The air-fuel ratio control apparatus according to claim 7, wherein the air-fuel ratio sensor detects the air-fuel ratio based on the concentration of oxygen in exhaust gas and outputs an output voltage that is linearly varied according to the air-fuel ratio.